

**BLAST Basic Local Alignment Search Tool**

Job Title: neuropeptide Y1 receptor

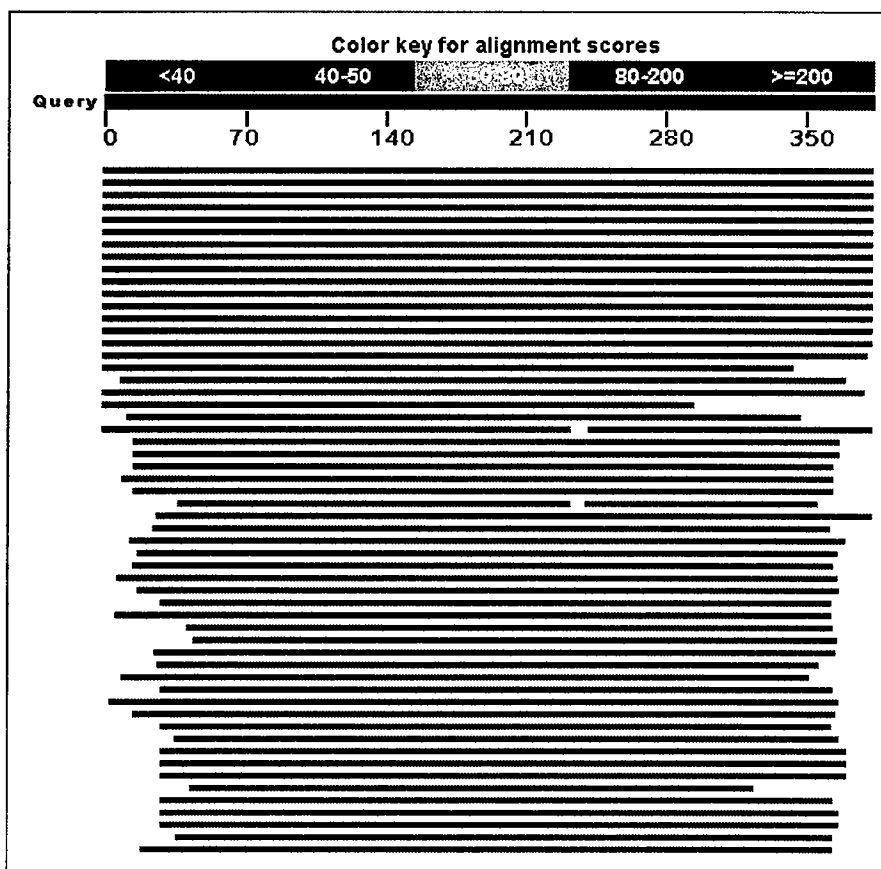
Show Conserved Domains

Putative conserved domains have been detected, click on the image below for detailed results.

**BLASTP 2.2.18 (Mar-02-2008)**

Reference: Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402. Reference for compositional score matrix adjustment: Altschul, Stephen F., John C. Wootton, E. Michael Gertz, Richa Agarwala, Aleksandr Morgulis, Alejandro A. Schäffer, and Yi-Kuo Yu (2005) "Protein database searches using compositionally adjusted substitution matrices", FEBS J. 272:5101-5109. RID: 1A61CHC0016 Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples from WGS projects 6,470,629 sequences; 2,208,486,882 total letters

Query= Length=384

**Distribution of 100 Blast Hits on the Query Sequence**

Distance tree of results **NEW**

Sequences producing significant alignments:		Score (Bits)	E Value	
ref NP_000900.1	neuropeptide Y receptor Y1 [Homo sapiens] >s...	792	0.0	UG
gb AAK29893.1	neuropeptide Y receptor Y1 [synthetic construct]	791	0.0	
gb AAA59920.1	neuropeptide y receptor	790	0.0	G
ref XP_001148035.1	PREDICTED: similar to neuropeptide Y rece...	785	0.0	UG
ref NP_001028038.1	neuropeptide Y receptor Y1 [Macaca mulatt...	784	0.0	UG
ref XP_001500038.1	PREDICTED: similar to neuropeptide Y rece...	761	0.0	UG
gb AAD13776.2	neuropeptide Y1 receptor [Sus scrofa]	758	0.0	G
ref NP_001039363.1	neuropeptide Y receptor Y1 [Bos taurus] >...	755	0.0	UG
ref NP_001002930.1	neuropeptide Y receptor Y1 [Canis lupus f...	754	0.0	UG
ref NP_999453.1	neuropeptide Y receptor Y1 [Sus scrofa] >sp ...	754	0.0	UG
ref XP_001509180.1	PREDICTED: similar to Lipopolysaccharide-...	744	0.0	UG
ref NP_035064.1	neuropeptide Y receptor Y1 [Mus musculus] >s...	741	0.0	UG
sp Q9WVD0 NPY1R_CAVPO	Neuropeptide Y receptor type 1 (NPY1-R)...	736	0.0	
sp P21555 NPY1R_RAT	Neuropeptide Y receptor type 1 (NPY1-R) (...)	738	0.0	G
ref NP_001106628.1	neuropeptide Y receptor Y1 [Rattus norveg...	738	0.0	UG
ref NP_001026706.1	neuropeptide Y receptor Y1 [Gallus gallus...	684	0.0	UG
prf 11617115A	G protein coupled receptor	668	0.0	
ref NP_001079348.1	neuropeptide Y receptor Y1, NPY/PYY recep...	608	2e-172	UG
ref XP_001374274.1	PREDICTED: hypothetical protein [Monodelp...	579	1e-163	UG
dbj BAA09888.1	neuropeptide Y-Y1beta receptor [Mus musculus]	571	3e-161	G
gb AAC62565.1	NPY receptor Y1 [Squalus acanthias]	486	1e-135	
dbj BAD92474.1	neuropeptide Y receptor Y1 variant [Homo sapi...	481	5e-134	G
ref XP_681386.2	PREDICTED: similar to neuropeptide Y recepto...	457	6e-127	UG
ref NP_001095861.1	Npy1r protein [Danio rerio] >ref XP_00133...	457	9e-127	G
gb ABI94073.1	neuropeptide Y receptor Y6 [Latimeria chalumnae]	453	1e-125	
gb AAQ62564.1	NPY receptor Y6 [Squalus acanthias]	449	1e-124	
ref NP_001038152.1	NPY receptor Y6 [Gallus gallus] >gb ABA86...	422	2e-116	UG
dbj BAE73048.1	hypothetical protein [Macaca fascicularis]	402	3e-110	
ref NP_571511.1	neuropeptide Y receptor Y8b [Danio rerio] >g...	383	1e-104	UG
gb AAD02833.1	neuropeptide Y/peptide YY receptor Yb [Gadus m...	374	8e-102	
ref XP_001367987.1	PREDICTED: similar to neuropeptide Y rece...	372	2e-101	UG
ref NP_001076242.1	neuropeptide Y/peptide YY Y6 receptor [Or...	371	4e-101	UG
gb AAL66410.1	NPY receptor [Lampetra fluviatilis]	371	5e-101	
ref NP_035065.1	neuropeptide Y receptor Y6 [Mus musculus] >s...	369	2e-100	UG
ref XP_001516769.1	PREDICTED: similar to neuropeptide Y rece...	368	3e-100	UG
ref NP_001098074.1	neuropeptide Y/peptide YY receptor Npy8br...	367	8e-100	UG
ref NP_001098075.1	neuropeptide Y/peptide YY receptor Npy4r ...	366	2e-99	UG
ref NP_001026726.1	pancreatic polypeptide receptor 1 [Gallus...	359	2e-97	UG
ref XP_001502701.1	PREDICTED: similar to neuropeptide Y rece...	356	1e-96	UG
ref NP_001106592.1	hypothetical protein LOC100127810 [Xenopu...	351	5e-95	UG
ref NP_001098073.1	neuropeptide Y/peptide YY receptor [Takif...	350	1e-94	UG
gb AAN78328.1	neuropeptide Y receptor Y6 [Pecari tajacu]	348	4e-94	
gb AAQ62563.1	NPY receptor Y4 [Squalus acanthias]	347	1e-93	
ref XP_001519501.1	PREDICTED: similar to neuropeptide Y rece...	346	2e-93	UG
ref NP_571512.1	neuropeptide Y receptor Y8a [Danio rerio] >g...	343	9e-93	UG
emb CAG02528.1	unnamed protein product [Tetraodon nigroviridis]	342	4e-92	
ref XP_001371780.1	PREDICTED: similar to neuropeptide Y rece...	336	2e-90	UG
sp Q61041 NPY4R_MOUSE	Neuropeptide Y receptor type 4 (NPY4-R)...	336	2e-90	G
ref NP_032945.3	pancreatic polypeptide receptor 1 [Mus muscu...	335	3e-90	UG
dbj BAC29082.1	unnamed protein product [Mus musculus]	335	4e-90	G
emb CAG05410.1	unnamed protein product [Tetraodon nigroviridis]	335	4e-90	
ref XP_546199.1	PREDICTED: similar to Neuropeptide Y recepto...	334	8e-90	UG
ref NP_113769.1	pancreatic polypeptide receptor 1 [Rattus no...	332	2e-89	UG
sp Q63447 NPY4R_RAT	Neuropeptide Y receptor type 4 (NPY4-R) (...)	332	2e-89	G
ref NP_571515.1	neuropeptide Y receptor Y4 [Danio rerio] >gb...	331	5e-89	UG
ref XP_582253.1	PREDICTED: similar to neuropeptide Y recepto...	328	3e-88	UG
gb AAD13144.1	pancreatic polypeptide receptor Y4 [Cavia porc...	328	3e-88	
ref XP_001500793.1	PREDICTED: similar to neuropeptide Y rece...	328	5e-88	UG

ref NP_999408.1	pancreatic polypeptide receptor 1 [Sus scrofa]	328	5e-88	UG
gb AAH99637.1	Pancreatic polypeptide receptor 1 [Homo sapiens]	317	7e-85	G
ref XP_001083057.1	PREDICTED: pancreatic polypeptide recepto...	315	4e-84	UG
gb AAN28939.1	neuropeptide Y receptor 4 [Macaca mulatta]	314	6e-84	
ref NP_005963.3	pancreatic polypeptide receptor 1 [Homo sapiens]	310	1e-82	UG
gb AAB97758.1	pancreatic polypeptide receptor >gb AAV68196.1...	310	1e-82	G
emb CAG46748.1	PPYR1 [Homo sapiens]	306	1e-81	G
gb AAS99844.1	gastric Y1 receptor [Oryctolagus cuniculus]	300	1e-79	G
gb AAH89981.1	Neuropeptide Y receptor Y1 [Rattus norvegicus]	279	3e-73	G
ref XP_001156961.1	PREDICTED: pancreatic polypeptide recepto...	276	2e-72	UG
emb CAG09405.1	unnamed protein product [Tetraodon nigroviridis]	275	4e-72	
gb ABS89151.1	Npylr protein [Acipenser baerii]	261	7e-68	
dbj JBA13103.1	Y6 encoding protein [Homo sapiens] >gb EAW621...	260	1e-67	G
gb ABS89170.1	Npy6r protein [Polypterus senegalus]	260	1e-67	
gb AAB19187.1	truncated pancreatic polypeptide receptor PP2	258	6e-67	
sp Q28602 NPY1R_SHEEP	Neuropeptide Y receptor type 1 (NPY1-R)...	240	1e-61	
gb AAS99846.1	gastric Y4 receptor [Oryctolagus cuniculus]	225	4e-57	G
gb ABS89168.1	Npy4r protein [Polypterus senegalus]	220	1e-55	
gb ABS89163.1	Npy6r protein [Lepisosteus osseus]	220	1e-55	
gb ABS89153.1	Npy4r protein [Acipenser baerii]	211	6e-53	
gb ABS89152.1	Npylr protein [Acipenser baerii]	191	9e-47	
gb ABE54774.1	neuropeptide Y receptor Y7 [Oncorhynchus mykiss]	189	3e-46	
gb ABS89173.1	Npylr protein [Anguilla anguilla]	183	2e-44	
ref NP_001032913.1	neuropeptide Y7 receptor [Gallus gallus] ...	182	5e-44	UG
gb ABS89172.1	Npylr protein [Anguilla anguilla]	180	2e-43	
ref XP_326039.2	PREDICTED: similar to Leucokinin receptor CG...	179	2e-43	UG
ref XP_001332759.1	PREDICTED: similar to neuropeptide Y rece...	179	3e-43	UG
ref XP_001863192.1	neuropeptide Y receptor type 2 [Culex pip...	179	4e-43	UG
ref XP_001517159.1	PREDICTED: similar to neuropeptide Y7 rec...	178	6e-43	UG
ref NP_001007219.1	neuropeptide Y receptor Y7 [Danio rerio] ...	177	1e-42	UG
dbj BAD86818.1	receptor for gonadotropin-inhibitory hormone ...	176	2e-42	
ref NP_647968.3	Leucokinin receptor CG10626-PA [Drosophila m...]	176	2e-42	UG
ref XP_001601972.1	PREDICTED: similar to ENSANGP00000011806 ...	176	4e-42	G
dbj BAE17050.1	RFamide-related peptide receptor [Gallus gallus]	175	6e-42	G
gb ABS89156.1	Npylr protein [Amia calva]	175	6e-42	
ref NP_989693.1	neuropeptide FF receptor 1 [Gallus gallus] >...	174	8e-42	UG
gb AAQ57211.1	putative neuropeptide receptor [Schistosoma ma...]	174	9e-42	
ref XP_320180.1	putative neuropeptide Y receptor 3 (AGAP0123...	174	1e-41	UG
ref XP_001862450.1	myokinin receptor [Culex pipiens quinquef...]	173	2e-41	UG
ref XP_609034.3	PREDICTED: similar to G-protein-coupled rece...	173	2e-41	UG
gb ABD96049.1	short neuropeptide F receptor [Anopheles gambiae]	173	2e-41	
ref XP_966881.1	PREDICTED: similar to F41E7.3 [Tribolium cas...]	172	5e-41	UG

## Alignments

```

>ref|NP_000900.1| UG neuropeptide Y receptor Y1 [Homo sapiens]
sp|P25929|NPY1R_HUMAN G Neuropeptide Y receptor type 1 (NPY1-R)
gb|AAA73215.1| G [Human neuropeptide Y peptide YY receptor mRNA, complete cds.],
gene product
gb|AAA59947.1| G neuropeptide Y receptor Y1
gb|AAH36657.1| G Neuropeptide Y receptor Y1 [Homo sapiens]
gb|AAS55647.1| G neuropeptide Y1 receptor [Homo sapiens]
gb|AAH71720.1| G Neuropeptide Y receptor Y1 [Homo sapiens]
gb|EAX04841.1| G neuropeptide Y receptor Y1 [Homo sapiens]
gb|ABM82191.1| G neuropeptide Y receptor Y1 [synthetic construct]
gb|ABM85379.1| G neuropeptide Y receptor Y1 [synthetic construct]
Length=384

```

GENE ID: 4886 NPY1R | neuropeptide Y receptor Y1 [Homo sapiens]  
(Over 10 PubMed links)

Score = 792 bits (2045), Expect = 0.0, Method: Compositional matrix adjust.  
Identities = 384/384 (100%), Positives = 384/384 (100%), Gaps = 0/384 (0%)

```

Query 1  MNSTLFSQVENHSHVSNFSEKNAQLLAFENDDCHLPLAMIFTLALAYGAVIILGVSGNLA 60
Sbjct 1  MNSTLFSQVENHSHVSNFSEKNAQLLAFENDDCHLPLAMIFTLALAYGAVIILGVSGNLA 60

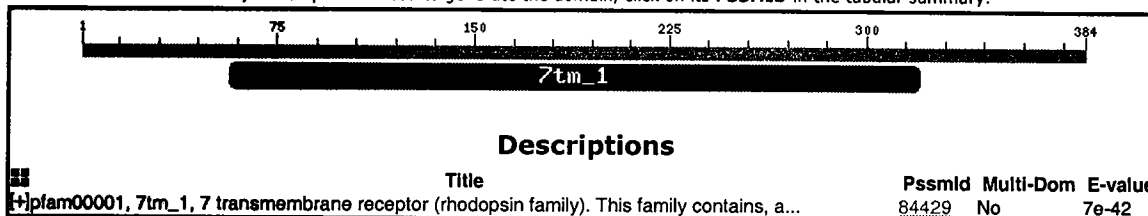
```

**Conserved  
Domains**[NewSearch](#)[PubMed](#)[Nucleotide](#)[Protein](#)[Structure](#)[Taxonomy](#)[Help](#)

Query sequence: [(local sequence)lcl|16797]

☐ Concise Result ☒ Full Result ☐ Show Search Information 

Click on the **colored bar** for a conserved domain to view your query sequence within the multiple sequence alignment for that domain. To see only the sequences used to generate the domain, click on its **PSSMID** in the tabular summary.

**Descriptions**

	Title	PssmId	Multi-Dom	E-value
	pfam00001, 7tm_1, 7 transmembrane receptor (rhodopsin family). This family contains, a...	84429	No	7e-42

[Search for similar domain architectures](#)**CD Search Reference:**

Marchler-Bauer A, Bryant SH (2004), "CD-Search: protein domain annotations on the fly.", *Nucleic Acids Res.*32(W)327-331.

[Help](#) | [Disclaimer](#) | [Write to the Help Desk](#)  
[NCBI](#) | [NLM](#) | [NIH](#)